

PATENT COOPERATION TREATY

12/11 / JLL / Elaine

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

To:
DAVID J. LEVY
GLAXOSMITHKLINE
CORPORATE INTELLECTUAL PROPERTY DEPT.
FIVE MOORE DRIVE, PO BOX 13398
RESEARCH TRIANGLE PARK, NC 27709

Date of mailing
(day/month/year) **03 NOV 2004**

Applicant's or agent's file reference

FOR FURTHER ACTION

See paragraph 2 below

PR60418WO

International application No.

International filing date (day/month/year)

Priority date (day/month/year)

PCT/US04/23680

23 July 2004 (23.07.2004)

29 July 2003 (29.07.2003)

International Patent Classification (IPC) or both national classification and IPC

IPC(7): A61K 31/416, 31/428, 31/42, 31/4439, 31/454, 31/4709, 31/496, 31/497; C07D 231/56, 401/12, 403/12, 413/12 and US Cl.: 514/405, 367, 337, 314, 322, 278, 254.06, 252.11, 234.5; 548/159, 245, 362.5; 546/275.7, 171, 199, 20; 544/371, 357

Applicant

SMITHKLINE BEECHAM CORPORATION

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA/ US
Mail Stop PCT, Attn: ISA/US
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450
Facsimile No. (703) 305-3230

Authorized officer

Evelyn Huang

Telephone No. 703-308-1235

Form PCT/ISA/237 (cover sheet) (January 2004)

BEST AVAILABLE COPY

DOCKETED

Docket No:

Attorney:

Paper:

Due Date:

Deadline:

Recorded:

PR60418WO

Written Opinion

03 JAN 2005

M

NOV 11 2004

Express Mail Label:
EV332130760US

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/US04/23680

Box No. I Basis of this opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This opinion has been established on the basis of a translation from the original language into the following language _____, which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).

2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

a. type of material

☐ a sequence listing

☐ table(s) related to the sequence listing

b. format of material

☐ in written format

☐ in computer readable form

c. time of filing/furnishing

☐ contained in international application as filed.

☐ filed together with the international application in computer readable form.

☐ furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

REST AVAILABLE COPY

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US04/23680

Box No. V Reasoned statement under Rule 43 bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)

Claims 1-44 YES

Claims NONE NO

Inventive step (IS)

Claims 1-44 YES

Claims NONE NO

Industrial applicability (IA)

Claims 1-44 YES

Claims NONE NO

2. Citations and explanations:

Claims 1-44 meet the criteria set out in PCT Article 33(2)-(3), because the closest prior art, WO 99/06375 A1, discloses a compound having a cyano and hydroxy corresponding to the instant R3 and R4, and does not teach or fairly suggest the instant compound wherein R3 and R4 are hydrogen or alkyl.

Claims 1-44 meet the criteria set out in PCT Article 33(4), and thus finds industrial applicability because the subject matter claimed can be made or used in the pharmaceutical industry as a therapeutic agent for treating a disorder mediated by inappropriate SGK-1 activity.

BEST AVAILABLE COPY